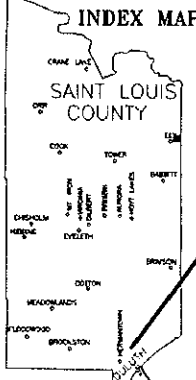


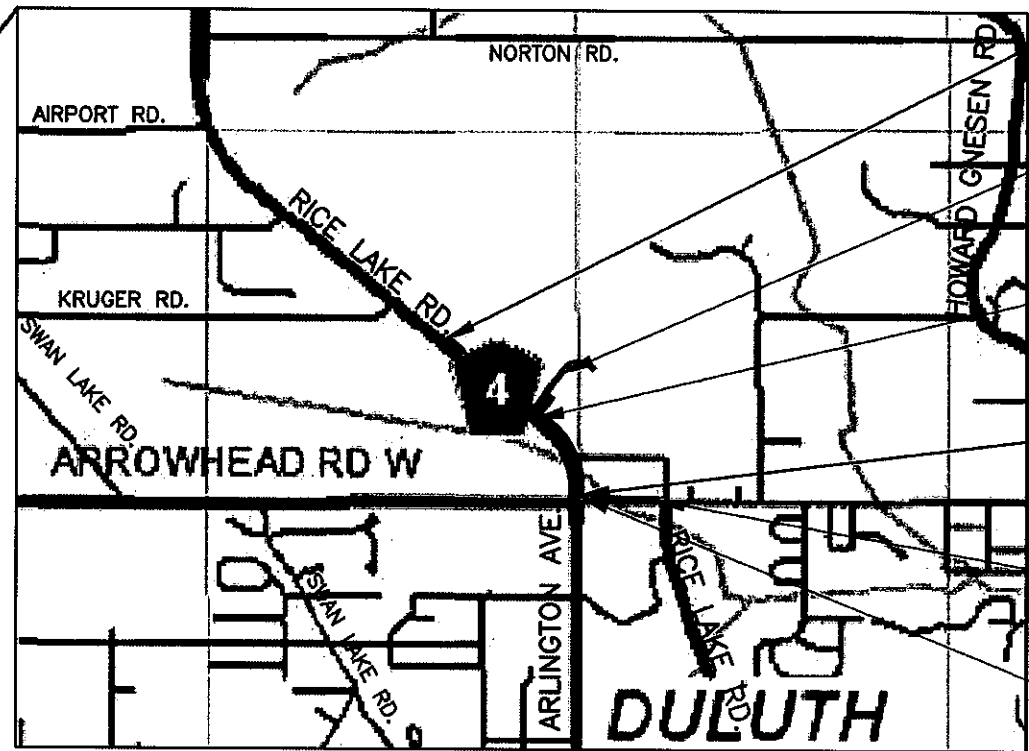
MINNESOTA DEPARTMENT OF TRANSPORTATION SAINT LOUIS COUNTY

**CONSTRUCTION PLAN FOR: MILL BITUMINOUS SURFACE, GRADING, STORM SEWER, BOX CULVERT, AGGREGATE BASE,
CURB & GUTTER, SIDEWALKS, BITUMINOUS SIDEWALK, BITUMINOUS SURFACING
TRAFFIC CONTROL SIGNAL SYSTEMS, AGGREGATE SHOULDERING**

STATE AID PROJ. NO. **069-604-078**
 LOCATED ON **CSAH 4 (RICE LAKE ROAD) BETWEEN CSAH 32 (W. ARROWHEAD RD.) & 941' SOUTH EAST OF KRUGER ROAD**
 STATE AID PROJ. NO. **118-160-025**
 LOCATED ON **TRAFFIC SIGNAL AT CSAH 4 (RICE LAKE ROAD), CSAH 32 (W. ARROWHEAD RD.) & MSAS 160 (ARROWHEAD ROAD)**
 CITY PROJECT NO. **1758**
 LOCATED ON **MSAS 160 (ARROWHEAD ROAD) BETWEEN CSAH 4 (RICE LAKE ROAD) & CSAH 4 (S. RICE LAKE ROAD)
& TECHNOLOGY DRIVE BETWEEN CSAH 4 (RICE LAKE ROAD) & A POINT 1,050' FROM INTERSECTION**



URBAN RECONSTRUCTION				RURAL RECONSTRUCTION					
GROSS LENGTH	1,748.70	FEET	0.331	MILES	GROSS LENGTH	1,315.00	FEET	0.249	MILES
BRIDGES-LENGTH	0.00	FEET	0.000	MILES	BRIDGES-LENGTH	0.00	FEET	0.000	MILES
EXCEPTIONS-LENGTH	0.00	FEET	0.000	MILES	EXCEPTIONS-LENGTH	0.00	FEET	0.000	MILES
NET LENGTH	1,748.70	FEET	0.331	MILES	NET LENGTH	1,315.00	FEET	0.249	MILES



END
SAP 069-604-078
STA. 31+00.0

CITY PROJ. NO. 1758
TECHNOLOGY DRIVE
WIDENING & SIDEWALK
STA. 101+00.0 TO STA. 110+46.2

SAP 069-604-078 &
CITY PROJ. NO. 1758
SIGNAL SYSTEM

BEGIN
SAP 069-604-078
STA. 0+36.3

CITY PROJ. NO. 1758
ARROWHEAD ROAD SIDEWALK
STA. 138+07.0 TO STA. 149+49.3

SAP 069-604-078 &
SAP 118-160-025
SIGNAL SYSTEM



SCALES	
GENERAL LAYOUT	0 1/2 MILE
INDEX MAP	0 60 MILES
PLAN VIEW	0 30 FT.
PROFILE VIEW	0 50 FT. 0 10 FT.
	HORIZONTAL VERTICAL
CROSS SECTION	0 20 FT.

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

PREVIOUS PLANS	
1967	SAP 69-604-15
1983	SP 69-604-34
1994	SAP 69-604-49, 50 & 51
2000	SAP 69-604-058
2000	SAP 69-604-058
2009	SP 69-604-066
2011	SAP 69-604-065

CP 0004-342005 SAP 069-604-078

MINN. PROJ. NO. _____

GOVERNING SPECIFICATIONS
 THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
 "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.
 AVAILABLE AT: <http://www.dot.state.mn.us/pre-letting/spec/index.html>

INDEX OF SHEETS

1	TITLE SHEET
2-4	ESTIMATED QUANTITIES
5	STANDARD PLATES, BASIS FOR ESTIMATED QUANTITIES
6-9	TYPICAL SECTIONS
10-21	CONSTRUCTION DETAILS
22-27	QUANTITY TABULATIONS
28-37	STORM SEWER PLAN AND DETAILS
38-46	BOX CULVERT PLAN AND DETAILS
47-57	EXISTING & REMOVAL PLAN
58-68	PLAN SHEETS
69-72	GEOMETRIC DETAILS
73-75	PROFILE SHEETS
76-95	EROSION CONTROL PLAN AND DETAILS (SWPPP)
96-101	TRAFFIC CONTROL
102-110	PAVEMENT MARKINGS
111-120	SIGNING PLAN
121-154	CROSS SECTIONS
SS1-SS28	SIGNAL PLAN

- THIS PLAN CONTAINS ## SHEETS -

DESIGN DESIGNATION - 8820.9936 (URBAN)
 URBAN RECONSTRUCTION STA. 00+36.3 TO STA. 15+50.0

DESIGN DESIGNATION - 8820.9920 (RURAL)
 RURAL RECONSTRUCTION STA. 15+50.0 TO STA. 31+00.0

R VALUE	20	= $\Sigma N18_{20}$	= 1,864,421
ADT (CURRENT YEAR)	2020	=	11,400
ADT (FUTURE YEAR)	2040	=	12,279
D (DIRECTIONAL DISTR.)		=	50/50%
T (HEAVY COMMERCIAL 12.0%)		=	1,505
PROJ. SOIL FACTOR		=	100 (R=20)
DESIGN LOADING		=	10 TON
TRAFFIC LANES		=	12.0'
SHOULDER WIDTH		=	Var.
CURB TO CURB WIDTH		=	Var.
FUNCTIONAL CLASS		=	Minor Arterial
DESIGN SPEED		=	45 mph
DESIGN SPEED AT STOP CONDITION		=	STOPPING SIGHT DISTANCE BASED ON 3.5' HEIGHT OF EYE AND 2' HEIGHT OF OBJECT

DESIGN SQUAD: **SOUTH DESIGN (A. LAPLANTE, J. RUST)**
 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER
 MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
 ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: **STEPHEN E. KRASAWAY**

SIGNATURE: _____

DATE: _____ L.C. NO.: **45397**

APPROVED: _____ DATE: _____
 ST. LOUIS COUNTY HIGHWAY ENGINEER

DISTRICT STATE AID ENGINEER: REVIEWED FOR
 COMPLIANCE WITH STATE-AID RULES/POLICY

STATE AID ENGINEER: APPROVED FOR STATE AID FUNDING

SHEET NO. 1 OF ## SHEETS

K:\Projects\1 - 40 CSAH\CSAH 4\0004-342005 SAP 069-604-078\400 Drawings\410 Design\410 Drawings\420 Sheets\2019 DESIGN\CP 0004-342005 TITLE SHEET.dwg